

Claims 24, 25, 28, 31, 34, 37, 39, 40, 43, 46, 49, 52, 55, 58, 61 and 64 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 24 and 49 recite the comparison of a calculated value of water vapor concentration in a fuel gas, calculated from detected values of raw material flow rate and water vapor flow rate, with either the detected value of water vapor concentration or the detected value of raw material concentration. While the calculated and detected values for a single parameter, water vapor concentration, may be compared in a straightforward manner, how the calculated water vapor concentration value may be compared to the detected raw material concentration is not understood from the claims. How these values for two different parameters are related is not defined. Claims 25, 28, 31, 34, 37, 39, 40, 43, 46, 52, 55, 58, 61 and 64 depend from claims 24 or 49, and would also be indefinite.

Claims 20-23, 26, 27, 29, 30, 32, 33, 35, 36, 38, 41, 42, 44, 45, 47, 48, 50-52, 54, 56, 57, 59, 60, 62 and 63 are allowed. The prior art cited either below or by applicant does not disclose a fuel cell system including a reformer, a raw material flow rate detector, a water vapor flow rate detector, and either a flow rate detector for gas coming out of the reformer, or a fuel gas differential pressure detecting instrument, and also an instrument for detecting the degree of reformer deterioration, that compares the detected values of fuel gas flow rate or fuel gas pressure differential with values calculated for these parameters, from the detected values of water vapor and raw material flow rates. The prior art also does not disclose the method of operating such a fuel cell system, or a computer-useable recording medium for such operation.

Claims 24, 25, 28, 31, 34, 37, 39, 40, 43, 46, 49, 52, 55, 58, 61 and 64 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action. The prior art also does not disclose a fuel cell system including a reformer, a raw material flow rate detector, a water vapor flow rate detector, and a detector for either water vapor concentration or raw material concentration in the fuel gas coming out of the reformer, and an instrument for detecting the degree of reformer deterioration, that compares the detected values water vapor or raw material concentration in the fuel gas, with a respective value calculated from detected values of water vapor and raw material flow rates.

The disclosure is objected to because of the following informalities: Figure 9 should be labeled "Prior Art". Appropriate correction is required.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamanashi (US 2003/0012990), Stocker (US 2003/0224230), Okamoto *et al.* (US 6,582,841), Okamoto (US 3,794,072) and Kubishiki *et al.* (US 7,157,170) disclose fuel cells with reformers and systems the control their operation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Kalafut whose telephone number is 571-272-1286. The examiner can normally be reached on Mon-Fri 8:00 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen J. Kalafut/  
Primary Examiner, Art Unit 1795